

IN THE CLAIMS:

Claims 1, 3, 5, 7, 10, 11, 13-23, 28-38, and 40 were previously canceled herein. Claims 41-43 have been added. All of the pending claims 2, 4, 6, 8, 9, 12, 24-27, 39, and 41-43 are presented below. Support for claim 41 can be found in previously presented claims 11 and 28. Support for claim 42 can be found in previously presented claims 13 and 29. Support for claim 42 can be found in previously presented claims 23 and 31. This listing of claims will replace all prior versions and listings of claims in the application. Please enter these claims as amended.

Listing of Claims:

1. (canceled)
2. (previously presented) An isolated nucleic acid molecule encoding a polypeptide having diacylglycerol acyltransferase activity, wherein the isolated nucleic acid molecule comprises a sequence according to SEQ ID NO: 1 or SEQ ID NO: 3.
3. (canceled)
4. (previously presented) A vector for transformation of plant cells, wherein said vector comprises a nucleic acid sequence encoding a polypeptide having diacylglycerol acyltransferase activity, wherein the nucleic acid sequence comprises SEQ ID NO: 1 or SEQ ID NO: 3.
5. (canceled)
6. (previously presented) The vector according to claim 4, wherein said nucleic acid sequence is present in said vector in a sense orientation.
7. (canceled)
8. (previously presented) Plasmid pDGATcDNA having accession number ATCC PTA-989.

9. (previously presented) Plasmid pDGATgene having accession number ATCC PTA-988.

10.-11. (canceled)

12. (previously presented) A genetically transformed plant wherein the genome of the plant has been transformed by the vector according to claim 4.

13.-23. (canceled)

24. (previously presented) The isolated nucleic acid molecule of claim 2, wherein the nucleic acid sequence is SEQ ID NO: 1.

25. (previously presented) The isolated nucleic acid molecule of claim 2, wherein the nucleic acid sequence is SEQ ID NO: 3.

26. (previously presented) The vector of claim 4, wherein the nucleic acid sequence is SEQ ID NO: 1.

27. (previously presented) The vector of claim 4, wherein the nucleic acid sequence is SEQ ID NO: 3.

28.-38. (canceled)

39. (previously presented) A genetically transformed plant seed, wherein the genome of the plant seed has been transformed by the vector of claim 4.

40. (canceled)

41. (new) A genetically transformed plant seed, wherein the genome of the plant seed has been transformed by an introduced nucleotide sequence selected from the group consisting of SEQ ID NO: 1 and SEQ ID NO: 3.

42. (new) A plant seed having a genome, wherein said genome has an introduced nucleotide sequence selected from the group consisting of SEQ ID NO: 1 and SEQ ID NO: 3 encoding a polypeptide having diacylglycerol acyltransferase activity.

43. (new) A method of changing the oil content, acyl composition or diacylglycerol/triacylglycerol ratio of the seed oil of plant seeds, said method comprising: introducing a nucleic acid construct comprising a nucleic acid sequence, selected from the group consisting of SEQ ID NO: 1 and SEQ ID NO: 3, encoding a polypeptide having diacylglycerol acyltransferase activity into a plant transformation vector; transforming the genome of a plant or plant seed with said plant transformation vector; expressing the nucleic acid sequence; growing the plant or plant seed; and selecting the transformed plant or plant seed having the changed oil content, acyl composition or diacylglycerol/triacylglycerol ratio as compared to an average of a statistically-significant number of seeds of plants of the same genotype grown in identical conditions, but without the introduced nucleotide sequence; wherein said polypeptide comprises SEQ ID NO: 2.